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Building Trust in a Post-Conflict Society: An Integrative Model of Cross-Group Friendship and Intergroup Emotions

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Abstract

Across one longitudinal and two cross-sectional surveys in Northern Ireland, we tested a model of intergroup relations in which outgroup attitudes and behavioral tendencies are predicted by cross-group friendship and positive intergroup appraisals, mediated by intergroup emotions and outgroup trust. In Study 1, outgroup friendship at Time 1 predicted outgroup trust at Time 2 (one year later), controlling for prior outgroup trust. In Study 2, positive and negative intergroup emotions mediated the effects of friendship on positive and negative behavioral tendencies and attitudes. In Study 3, a confirmatory factor analysis indicated that trust and emotions are distinct constructs with unique predictive contributions. We then tested a model in which cross-group friendship predicted intergroup emotions and trust through intimate self-disclosure in outgroup friendships. Our findings support an integration of an intergroup emotions framework with research highlighting the importance of cross-group friendship in fostering positive intergroup outcomes.

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It is a vice to trust all, and equally a vice to trust none.

– Seneca

In the aftermath of violent conflict, the parties involved must often undo years of segregation, mutual suspicion, and mutual mistrust, and work toward a process of intergroup engagement, integration, and the development of the kind of mutual trust that allows the functioning of a stable society. Intergroup contact is crucial to this goal. Cumulative findings from experimental (Ensari & Miller, 2002), field (Binder et al., 2009; Tausch, Hewstone, Kenworthy, Cairns, & Christ, 2007), and meta-analytic (Pettigrew & Tropp, 2006) research strongly suggest a causal link between intergroup contact and improved intergroup attitudes (Allport, 1954). Our present aim is to expand contact research to develop a more sophisticated, integrative model of how cross-group friendship, intergroup emotions, and trust impact a broad array of behavioral tendencies toward outgroups, in a context of real intergroup conflict.

Studying Intergroup Behavior

Intergroup behavior can be broadly categorized into approach and avoidance behaviors. Approach behaviors can be either positive-benevolent (e.g., talking to, mingling with, forming friendships with, and dating outgroup members) or negative-hostile (e.g., arguing, fighting, employing discriminatory workplace policies, or engaging in violent acts or counter-attacks). Avoidance behaviors can range from keeping one's interpersonal distance from outgroup members, to collective distancing practices like segregating communities or building physical walls. Study of the predictors of intergroup behaviors, including distinct patterns of intergroup emotions based on various appraisal processes, enriches our understanding of intergroup relations and how to improve them.

The Present Model: Cross-Group Friendship and an Intergroup Emotions Framework

We use an intergroup emotions theoretical framework to predict that cross-group friendship

and intergroup appraisals will lead to intergroup trust and an array of positive and negative intergroup emotions. Positive emotions (e.g., cheerfulness, happiness) and trust should increase, whereas negative emotions (e.g., anger, contempt, anxiety) should decrease. However, in line with intergroup emotions theory (Mackie & Smith, 2002), we propose that outgroup trust and these specific emotions will differentially give rise to distinct behavioral tendencies, such as wanting to spend time with the outgroup, to attack or confront the outgroup, or to avoid the outgroup altogether. Positive emotions should mediate the link between cross-group friendship and positive behavioral tendencies more than for attack or avoidance behavioral tendencies. Likewise, angry emotions should mediate the link between cross-group friendship and attack or confront tendencies more than for avoidance tendencies.

We propose that this integrative model of cross-group friendship and intergroup emotions theory provides a more novel, compelling, and cogent analysis of intergroup behavioral tendencies than do existing theories by themselves. We now introduce the main components of our model: cross-group friendship, intergroup emotions models, and intergroup trust.

Cross-Group Friendship. Cross-group friendship is an especially potent form of intergroup contact (see Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Turner, Hewstone, & Voci, 2007). This is thought to be because cross-group friendships naturally contain optimal conditions for intergroup contact (e.g., cooperation, equality, closeness, etc.), and engender self-disclosure (Turner et al., 2007; Turner & Feddes, 2011). Across three studies we demonstrate that cross-group friendship promotes changes in intergroup emotions, trust, and behavioral tendencies.

Intergroup Emotions Approach. Intergroup emotions theory (see Mackie & Smith, 2002; Mackie et al., 2008) is one attempt to differentiate collective intergroup appraisals, group-based emotions, and the ensuing behavioral tendencies (see also the Stereotype Content Model [Fiske, Cuddy, Glick, and Xu, 2002] and Image Theory [Brewer & Alexander, 2002]). Intergroup emotions theory assumes that because group memberships are important aspects of individuals' self-concepts

(Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), appraisals of events that impact the group result in collectively felt emotions, which then predict specific, behavioral, group-based responses. Intergroup appraisals – a concept central to the intergroup emotions approach – are variables representing the ways in which group members see and interpret intergroup dynamics. Group members appraise whether there is fairness in the allocation of, or access to, natural resources, jobs, political power, etc. They might appraise whether the goals between groups are cooperative or competitive, and whether there is equality of status between groups. The intergroup emotions approach proposes that different appraisals lead to distinct emotional responses, which in turn predict distinct behavioral outcomes (Frijda, 1987).

Mackie and Smith (2002) and their colleagues (e.g., Leonard, Mackie, & Smith, 2011) have reported consistent evidence for the role of these kinds of appraisals in leading to specific emotions, which in turn predict both outgroup attitudes and specific behavioral tendencies with respect to outgroups (see Van Zomeren, Spears, Fischer, & Leach, 2004). As Voci (2006) noted, positive and negative intergroup outcomes are not a zero-sum equation: both positive and negative perceptions and behaviors can be present, albeit with different specific predictors. This paper tests this approach in Northern Ireland, a context of protracted conflict between the Catholic and Protestant communities, where intergroup trust can be fragile. We argue that intergroup appraisals and emotions are important predictors of behavioral tendencies toward outgroups.

Outgroup Trust

Trust can be broadly defined as a positive bias in the processing of imperfect information (Yamagishi & Yamagishi, 1994). Trust has been called a *pro-social facilitator*. It is a psychological means to overcome uncertain social interactions by making benign assumptions about other people's behavior (Molm, Takahashi, & Peterson, 2000).

Reviews of trust (e.g., Cook, 2001; Hardin, 2002) reveal the difficulty of defining trust, which has been conceived in many different ways. It has both affective and cognitive elements, the latter

including purely expectation-based or schema-based accounts (e.g., Deutsch, 1960; Insko, Schopler, Hoyle, Dardis, & Graetz, 1990). Some studies have shown that trust and behavioral commitment can develop as a means of reducing uncertainty (e.g., Molm et al., 2000) and that they are associated with the development of affective bonds from repeated successful exchanges between partners (see Cook et al., 2005). These diverse perspectives all include the notion that trusting another person or party has the potential for gain or loss in that particular context.

We argue that trust is essential in intergroup behavior because, unlike attitudes, trust implies a willingness to engage in behavior that has potential costs. We expect cross-group friendship to be an important predictor of out-group trust because it can provide the concrete diagnostic data required to build trust (Kramer & Carnevale, 2001). Trust (or the lack thereof) has been identified as a central component of intergroup conflict (Dovidio, Gaertner, Kawakami, & Hodson, 2002). Trust has been previously examined in intergroup contexts (e.g., Moy & Ng, 1996; Yuki, Maddux, Brewer, & Takemura, 2005), but nearly absent in the literature are studies examining trust and distrust *in real intergroup conflicts* (cf., Tam, Hewstone, Kenworthy, & Cairns, 2009), where the restoration of trust is essential to the survival of both the individuals and the groups involved. Thus, one of our present aims is to explore trust in a real conflict. Further, we will explore trust as a multifaceted construct, rather than as a simpler, unidimensional variable. For instance, we will differentiate trust in individual outgroup members from general trust in the outgroup as a whole. We also report measures of outgroup trust concerning the predictability (see Rempel, Holmes, & Zanna, 1985) of outgroup behavior and the expectation that the outgroup will not harm the ingroup. This latter construct emerged from focus groups, and seems to be an important element of trust in the context of Northern Ireland, which we discuss below.

Although there exists no formal theory regarding trust as a predictor of intergroup behavioral tendencies, we expect that trust, by nature of its definition as a positive bias in information

processing, will be associated with cross-group friendship and more positive intergroup appraisals, and will predict our key outcome variables independently of intergroup emotions. It should be associated with an increase in approach tendencies and a reduction in either confronting or avoidance tendencies.

Socio-Political Context

In this paper, we test a theoretical integration of research on cross-group friendships with an intergroup emotions theoretical framework in a context of real intergroup conflict and violence, as contrasted with the relatively mild contexts in which intergroup emotions have thus far been examined (e.g., Smith et al., 2007).

Northern Ireland is emerging from decades of sectarian violence. Since 1969, over 3,600 people have been killed in "The Troubles" in Northern Ireland, and more than half of the Northern Irish population knows someone who has been injured or killed as a direct result of sectarianism (Smyth & Hamilton, 2003). Many people in Northern Ireland, primarily in the Protestant community, believe that the country should remain part of the United Kingdom. Others, primarily in the Catholic community, believe instead that it should become part of a (re-)unified Republic of Ireland. Religious polarization in Northern Ireland is such that many vital aspects of social life (e.g., areas of residence, schools, shops, political parties, sports teams, first and last names) can be easily identified as being either Catholic or Protestant (see Hargie & Dickson, 2003). Recent developments seem to signal an end to the violence in Northern Ireland. For example, in the aftermath of the London subway bombings in July 2005, the Irish Republican Army (IRA) decommissioned all of their weaponry and has publicly announced a formal end to their violent struggle and the Ulster Volunteer Force (UVF), responsible for more than 500 killings over the years, has renounced violence, put its arms "beyond reach", and will no longer exist as a terrorist organization (BBC, 03 May 2007). Even more hopeful, the main Protestant and Catholic political leaders, former foes, have been involved in a historic

power-sharing government of Northern Ireland, ending direct rule from London, on and off since 1998, and without interruption since 2007.

Despite these important advances and the continuing resolution of a range of economic and social disparities (e.g., employment, education, and housing), sectarian division is still highly symbolic and psychologically real, and the conflict still pervades people's everyday lives. Notwithstanding relative peace, reconciliation between the communities remains out of reach. The killing of two soldiers at an army barracks in County Antrim, in March, 2009, and sectarian riots in Belfast in the summers of 2009, 2010, and 2011 illustrate the ongoing difficulty.

Overview and Predictions

In such a society, it is crucial to understand the development of trust and positive intergroup behaviors, and to promote lasting harmony. In this paper, we report three studies addressing the mechanisms predicting and underlying both positive and negative intergroup behavioral tendencies. Study 1 used a random sample of the Northern Irish adult population in a longitudinal design and tested cross-lagged relationships between friendship contact and trust toward the outgroup. It is the first (to our knowledge) longitudinal test of the hypothesis that cross-group friendship can lead to an increase in outgroup trust over time, controlling for pre-existing trust. The ensuing two studies are cross-sectional, both focused on mediating processes between the predictor variables of cross-group friendship and intergroup appraisals, and the outcome variables of outgroup attitudes and specific behavioral tendencies. In addition, Studies 2 and 3 focus on developing more sophisticated measures of intergroup trust. Study 2 expanded the measurement of trust, and included the addition of intergroup appraisals (regarding intergroup equality, fairness, and goal compatibility) as a predictor. Finally, Study 3 used a (new) random sample from the adult Northern Irish population, and tested a full model of friendship contact and appraisals predicting behavioral tendencies and outgroup attitudes via reciprocal self-disclosure, intergroup emotions, and trust.

We expect that cross-group friendship will proximally predict (as mediators) outgroup trust as

well as positive and negative intergroup emotions (see Binder et al., 2009; Tam et al., 2009). In turn, positive emotions should strongly predict positive behavioral tendencies but not negative tendencies. Angry emotions should predict confront tendencies, but not avoidance or positive tendencies. Anxious emotions should predict avoidance tendencies, but not confront or positive tendencies. Contempt emotions – being a combination of scorn, derision, and disgust – should predict both confront and avoidance tendencies, but not positive tendencies. Cross-group friendship should also predict greater outgroup trust as a mediator. Trust, in turn, should predict outgroup attitudes and more positive behavioral tendencies and less negative behavioral tendencies.

Study 1

There is a small but growing body of longitudinal studies that has documented the role of intergroup contact in intergroup relations, focusing primarily on the relationships between intergroup contact and outgroup prejudice. Only longitudinal studies can distinguish a contact effect (when contact leads to changes in prejudice) from a self-selection effect (when prejudice determines the amount of contact), and available research has typically found that positive intergroup contact leads to reduced prejudice, but also sometimes that increased prejudice predicts lower levels of contact (i.e., a bidirectional relationship; e.g., Binder et al., 2009; Levin, van Laar, & Sidanius, 2003; Swart et al., 2011; but see Dhont, Van Hiel, De Bolle, & Roets, 2011).

Our study is the first to assess the reciprocal relationship between friendship and trust, which will allow us to elucidate the possible effects of contact on trust, while accounting for the role that trust plays in determining the amount of contact people participate in.

Method

Respondents and Sampling

Study 1 respondents were drawn at random from four areas of Belfast, Northern Ireland by a professional survey organization. The selected respondents were first sent a letter asking them to complete the interview as part of the 'Belfast Cross-Community Survey', which is conducted regularly

by the University of Ulster. All interviews were conducted face-to-face, in respondents' own homes, by trained social survey interviewers (who do not reveal their own community membership). Respondents were not compensated for their participation. Cards with questions and response options were shown to supplement verbal statements. The first wave of interviews (*N*=984) was conducted between March and July 2006. The final sample for Time 1 analysis, after excluding respondents with missing data, included 970 who completed the measures of the variables of interest (*N*=541 Protestant: 321 female, 220 male, mean age=53.17; *N*=429 Catholic: 281 females, 148 males, mean age=50.32 years). The second wave of interviews was conducted between May and August2007. First wave respondents were re-contacted via telephone, and interviews were again conducted face-to-face. Of the overall sample, 411 individuals (*N*=185 Catholics, 62 male, 123 female, mean age 51.56; *N*=226 Protestants, 83 male, 143 female, mean age 52.75) completed the survey at Time 2. Rather than deleting the participants who did not participate in the questionnaire at Time 2, we used the full sample of 970 participants for our analysis, utilizing full information maximum likelihood (FIML) estimation (see Enders, 2010).[1]

Variable Measurement

Predictor Variable. The predictor variable was the number of cross-group friendships (see Turner, Hewstone, Voci, & Vonofakou, 2008): "How many of your close friends are from the other community?" (1=*none*, 2=*a few*, 3=*about half*, 4=*most*, 5=*all*).

Dependent Variable. The dependent variable was outgroup trust, and was measured by asking participants three questions (adapted from Brehm & Rahn's 1997 trust scale). Participants were asked the following questions: "Do you think most members of the other community would try to

[1] A multivariate analysis of variance (MANOVA) tested for differences between people who participated in both surveys and those who 'dropped' after Time 1. There were no significant differences between the individuals who dropped after T1 and those who stayed in the sample, in terms of their mean levels on our constructs of interest. Contact the first author for details.

take advantage of you if they got a chance, or would they try to be fair?" (4-point scale: 1=*Definitely take advantage*; 4=*Definitely try to be fair*), "Would you say that most members of the other community can be trusted or that you can't be too careful with them?" (4-point scale: 1=*Definitely can be trusted*; 4=*Definitely can't be too careful,* reverse-coded), and "Members of the other community will exploit me if I trust them" (5-point scale: 1=*I strongly disagree*; 5=*I strongly agree*, reverse-coded). Cronbach's α for the three items was acceptable at Time 1 (α=.78) and at Time 2 (α=.88).

Results and Discussion

To examine the relationships among the variables[2], we employed a structural equation modeling (SEM) approach (Jöreskog & Sörbom, 1996), treating trust as a latent factor. To assess the overall model fit, we used the chi-square (χ^2) test, the root mean square of approximation (RMSEA), the standardized root mean square residual (SRMR), the Tucker-Lewis index (TLI), and the comparative fit index (CFI). A satisfactory fit is generally indicated by a nonsignificant χ^2 (although significant values are acceptable when the sample size is large), a χ^2/df ratio≤3, a CFI≥.95, a TLI≥.95, a RMSEA≤.06, and a SRMR≤.08 (see Hu & Bentler, 1999). We analyzed a structural model which considers the influence of cross-group friendship on outgroup trust. We hypothesized that friendship experiences at Time 1 (T1) would lead to more trust at Time 2 (T2), even after initial levels of trust had been controlled for. We also tested whether Time 1 trust predicted Time 2 friendships, after initial levels of friendship had been controlled.

We first conducted a two-group confirmatory factor analysis (CFA) of the constructs and indicators to assess the adequacy of the measurement model for the Protestant and Catholic samples. This CFA, testing for invariance of factor loadings across time for both groups, fit the data well, $\chi^2(26)=39.572$, $p=.04$, χ^2/df ratio=1.52; RMSEA=.033; SRMR=.05; TLI=.989; CFI=.990. We then calculated the structural model fit. We created a two-group saturated model with both T1 constructs

[2] Information regarding the descriptive statistics and intercorrelations among variables, for all studies in this article, can be obtained by contacting the first author.

predicting both T2 constructs in order to test whether cross-group friendships predict trust, and the 'selection bias' hypothesis (that trust predicts contact). The proposed structural model fit the data very well, $\chi^2(42)=57.048$, $p=.06$, χ^2/df ratio=1.36; RMSEA=.027; SRMR=.047; TLI=.988; CFI=.991. We then constrained the beta-paths between T1 and T2 to equality across both groups and found that this model also fit the data well: $\chi^2(46)=58.336$, $p=.06$, χ^2/df ratio=1.27; RMSEA=.024; SRMR=.053; TLI=.991; CFI=.993, $\Delta\chi^2(4) = 1.29$, $p = .86$; ΔCFI=.002. For both Protestants and Catholics, T1 cross-group friendship significantly predicted T2 outgroup trust ($\beta=.12$, $p=.04$), even when controlling for prior levels of outgroup trust. We also found that for both groups, T1 outgroup trust did not significantly predict T2 friendships ($\beta=.08$, $p=.12$), when previous levels of friendship were taken into account.

We then tested a non-saturated structural model, dropping the non-significant beta loading between T1 outgroup trust and T2 friendship. This proposed structural model also fit the data well and did not represent a deterioration in fit compared to the saturated model, $X^2(47)=60.685$, $p=.09$, X^2/df ratio=1.29; RMSEA=.025; SRMR=.054; TLI=.990; CFI=.992; $\Delta\chi^2(1) = 2.349$, $p = .16$; ΔCFI=.001. In this model, T1 friendship significantly predicted T2 outgroup trust, $\beta=.13$, $p=.02$, for both groups (see Figure 1). This longitudinal test found that outgroup friendship at T1 predicted more trust at T2, even after initial levels of trust had been controlled for. The reciprocal path between T1 trust and T2 friendship was, however, not significant.

Study 1 thus shows that those who have more cross-group friendships will be more likely to trust outgroup members than will those with fewer or no friendships. Furthermore, we have shown that there was no evidence of a selection bias, in which those who are high in initial trust are likely to seek out and develop cross-group friendships.

Study 2

Having established that cross-group friendships can predict greater levels of outgroup trust over time, we next sought to explore whether such friendships are associated with positive outgroup attitudes as well as positive and negative behavioral tendencies in educational contexts, and whether outgroup trust and intergroup emotions independently mediate the effect. In Northern Ireland, the majority of primary and secondary schools are segregated. Around 92% of pupils attend either Maintained (predominantly Catholic) or Controlled (predominantly Protestant) schools (DENI, 2007), and Cairns and Hewstone (2002) reported that over 90% of children attend a Catholic or Protestant school at *both* elementary and secondary level. Against this stark evidence of educational segregation, mixing at university level holds considerable promise (Al Ramiah, Hewstone, Voci, Cairns & Hughes, 2011).

Study 2 built on the model of cross-group friendship and trust in Study 1 and measured outgroup trust and a range of intergroup emotions, to be modeled as mediators in the link between cross-group friendship and (a) outgroup attitude and (b) positive and negative behavioral tendencies. We also measured intergroup appraisals, and included additional items tapping outgroup trust (derived from focus groups; Hewstone et al., 2008).

Method

Respondents and Sampling

In Study 2, we recruited a cross-section of a desegregated undergraduate population in Northern Ireland (*N*=191). After excluding those participants who failed to complete the survey, those who did not self-identify as either Catholic or Protestant, and those who were not from the country, 160 undergraduate students (71 Protestant: 36 female, 34 male, mean age=20.11; 89 Catholic: 54 female, 27 male, mean age=20.55) remained in the final sample for analysis.

Variable Measurement

Predictor Variables: Cross-Group Friendship and Intergroup Appraisals. Cross-group friendships were measured with the item: "How many of your closest friends are from the other

community?" (1=*none*, 2=*one to five*, 3=*six to ten*, 4=*eleven to twenty*, 5=*more than twenty*).

The intergroup appraisal items assessed individuals' perceived fairness between the two communities, political and economic equality, and intergroup goal compatibility. The four items were (the first three began with: "The two communities in the North of Ireland are"): " . . . equal in terms of political power", ". . . equal in terms of economic power", ". . . working together for the same goals", and "In general, there is fairness in the way things work out between the two communities". These four items (α=.60) were measured on 5-point scales (1=*I strongly disagree*; 5=*I strongly agree*).

Mediators: Intergroup Emotions and Trust. We asked questions measuring the degree to which participants felt a series of emotions when thinking about the other community. Positive emotions (α=.79) were *cheerful*, and *happy*, whereas the negative emotions were separated into indices of anger (*angry* and *irritated;* α=.88), contempt (*contempt* and *disgusted;* α=.70), and anxiety (*nervous* and *anxious;* α=.77).

Outgroup trust (see Appendix A) included the 3-item measure from Study 1 and other items that were based on focus groups that we conducted in several areas of Northern Ireland, or adapted from Rempel et al.'s (1985) interpersonal trust scale, which measures three trust dimensions: predictability, dependability, and faith. A factor analysis on the trust items revealed the presence of two factors with eigenvalues higher than 1, accounting for 48.81% of the variance. These two factors represented: (1) a 'General Outgroup Trust' factor (α=.73), comprised of three general trust items (similar to those used in Study 1), the four items having to do with predictability, dependability, and faith (Rempel et al., 1985), and benevolence of the outgroup concerning personal information (all loadings > .44); and (2) a factor labeled 'Trust: No Harm', comprised of three items (α=.65) concerned with trusting that outgroup members will not (a) harm, (b) attack, or (c) give information to terrorist/paramilitary groups (all loadings > .44).

Dependent Variables: Outgroup Attitudes and Behavioral Tendencies. We measured outgroup attitudes using a 100-point feelings thermometer (see Converse & Presser, 1986), with

higher values indicating "warmer", or more favorable outgroup attitudes. Positive behavioral tendencies were measured with two items, *talk to them*, and *find out more about them* (α=.74), whereas negative behavioral tendencies were measured using four items, separated into indices of negative-confront (*oppose them* and *confront them;* α=.74) and negative-avoid (*avoid them* and *have nothing to do with them;* α=.80).

Results and Discussion

A mediated path model considered the influence of cross-group friendship, as well as intergroup appraisals, on outgroup attitudes and on positive and negative (both confront and avoid) behavioral tendencies via the mediation of positive and negative intergroup emotions, and the two outgroup trust factors. As a strict test of the mediation hypothesis, all the direct paths between predictors and criterion variables were excluded a-priori. As part of the mediational structure, we predicted that outgroup trust would again be associated with increased positive behavioral tendencies and with decreased negative behavioral tendencies.

Figure 2 presents the results of the mediated path analysis. The satisfactory fit of the model indicates that the hypothesized mediating processes represent the associations between variables. Cross-group friendship significantly predicted all mediating variables, except for the Trust: No Harm factor, for which the effect was only marginally significant. By contrast, intergroup appraisals significantly predicted only positive intergroup emotions and was marginally significantly related with the Trust: No Harm factor. In turn, General Outgroup Trust was positively associated with positive behavioral tendencies and attitudes, and negatively related to negative-avoid tendencies. The Trust: No Harm factor predicted only attitudes. Positive emotions were positively related to positive behavioral tendencies and attitudes, but did not predict negative behavioral tendencies. Of the negative emotion scales, none was related to positive behavioral tendencies or attitudes. Anger was positively associated with negative-confront and avoid tendencies. Contempt only predicted negative-confront tendencies, and anxiety only predicted avoidance.

We then tested whether Catholic and Protestant respondents yielded different results in the model depicted, applying the multisample comparison approach (Jaccard & Wann, 1996; Jöreskog & Sörbom, 1999). No difference emerged between the two samples for any of the estimated paths.

Indirect Effects. In addition to the mediated model above, we also conducted bootstrap analyses with 5,000 resamples in order to assess the proposed indirect (mediational) effects of cross-group friendship and intergroup appraisals on outgroup attitudes and behavioral tendencies, via trust and the intergroup emotions (see Table 1). Cross-group friendship had a positive indirect effect on positive behavioral tendencies through increased General Outgroup Trust, more positive emotions and reduced anger. The negative indirect relation between contact with friends and avoidance was due to the reduction of anxiety, while the negative association between contact and negative-confront tendencies passed through increased General Outgroup Trust and reduced contempt. Finally, cross-group friendship had a positive indirect effect on outgroup attitude through increased General Outgroup Trust and positive emotions.

The indirect effects of intergroup appraisals were weaker than those of cross-group friendship: the indirect effect on positive tendencies was due to an increase in General Outgroup Trust and positive emotions and to a reduction of anger, while the indirect effect on outgroup attitude involved positive emotions only.

Study 2 yielded some novel and important findings. With respect to cross-group friendship, this variable predicted a collection of proposed mediating variables: positive emotions, three distinct negative emotions, and general outgroup trust. Whereas General Outgroup Trust predicted both positive and negative behavioral tendencies, positive emotions predicted outgroup attitudes and positive tendencies, but not negative tendencies. Also, in line with our predictions, angry emotions predicted confront tendencies more strongly than they did avoidance tendencies. Contempt emotions predicted confront but not avoid tendencies. Anxiety predicted avoidance but not confront

tendencies. Intergroup appraisals, representing perceptions of intergroup equality, goal compatibility, and fairness, had their proximal effect primarily via positive emotions.

Study 3

A major purpose in Study 3 was to replicate and extend the findings so far. We first added a measure of opportunity for contact with outgroup members, assessing exposure to or familiarity with outgroup members, without actual contact in the form of interaction and communication; this variable can serve as an exogenous variable, allowing us to test reverse causal models. Next, we added a measure of self-disclosure, as a potential mediator between outgroup friendship on the one hand, and emotions and trust on the other hand.

Self-disclosure

There are good theoretical reasons to expect that self-disclosure will mediate the effects of friendship on emotions and trust. At the individual level, self-disclosure represents a level of interpersonal intimacy typically reserved for close friends or loved ones (Laurenceau, Barrett, & Pietromonaco, 1998) and plays a central role in the development and maintenance of relationships (Collins & Miller, 1994). Disclosure of personal information implies liking and trust, and engenders reciprocal liking and trust (Harwood, Hewstone, Paolini, & Voci, 2005; Miller, 2002). At the cross-group level, self-disclosure is associated with decategorization and personalization of outgroup members (Brown & Hewstone, 2005; Miller, 2002).

Cross-group self-disclosure can improve outgroup attitudes (Davies et al., 2011; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006) and mediate the effects of cross-group friendship on improved generalized outgroup attitudes (Turner, Hewstone, & Voci, 2007). Although trust may be necessary for self-disclosure to occur in the first place, self-disclosure also promotes an escalation of mutual trust (Turner et al., 2007). We propose that self-disclosure will not only mediate the effects of contact on our evaluative variables (emotions and trust), but will ultimately be a key link in the

pathway to behavioral tendencies and outgroup attitudes.

Method

Respondents and Sampling

All data collected for this study came from a random sample (*N*=1,000) of the adult Northern Irish population, conducted by professional interviewers in respondents' homes, using the same procedures (but a different sample) reported for Study 1. The final sample for analysis, after excluding respondents with missing data, included 880 participants (547 Protestant: 250 female, 297 male, mean age=47.97; 333 Catholic: 151 female, 182 male, mean age=44.14).[3]

Variable Measurement

Opportunity for Contact. Opportunity for outgroup contact was measured with three items: "How often do you see members of the other community in the area where you live?" (0=*never*; 1=*rarely*, 2=*sometimes*, 3=*often*, 4=*very often*); "About how many neighbours do you have who belong to the other community?" (0=*none at all*, 1=*one*, 2=*two to five*, 3=*five to ten*, 4=*more than ten*); and "What percentage of people in your home area would you guess belong to the other community?" (α=.79).

Predictor Variables: Contact and Intergroup Appraisals. Cross-group friendships were measured with the same item as in Study 2. Positive intergroup appraisals (α=.74) were measured using the same four questions as in Study 2, with one addition: "The goals of the two communities in the North of Ireland are incompatible with each other" (reverse-coded).

Mediators: Self-disclosure, Intergroup Emotions, and Trust. Participants were asked three questions regarding their self-disclosure in interactions with outgroup members: "How much personal information do you tell them?", "How much personal information do they tell you?", and "How personal is the information you share with each other?" All three items (α=.95) were assessed

[3] Analyses including income and education level of respondents did not alter the relations between constructs.

on 5-point scales (1=*none at all*, 5=*a lot*; for the third item, 1=*not at all personal*, 5=*extremely personal*).

As in Study 2, there were two positive emotions (*cheerful*, and *happy*; α=.85) and indices for anger (*angry* and *irritated;* α=.81), contempt (*contempt* and *disgusted;* α=.72), and anxiety (*nervous* and *anxious;* α=.73).

We further expanded our multidimensionality of trust: in Study 2, we assessed the degree to which participants trusted outgroup members whom they knew personally not to harm the ingroup. In this sample, we replaced the item concerning terrorist/paramilitary groups (which we deemed too extreme) with a third question assessing trust that outgroup members will not deceive the ingroup. In addition, we created versions of these three items that assessed the degree to which respondents trusted the outgroup in general not to harm, attack, or deceive (see Appendix B). This latter factor is most similar to the 'Trust: No Harm' factor from Study 2. In order to examine the predictability aspect of trust as a construct in its own right, we added two items to the predictability item from Study 2 (see Appendix B).

An exploratory factor analysis (principal axis method with oblimin rotation) revealed the presence of four factors with eigenvalues higher than 1, accounting for 74.8% of the variance. These factors represented four kinds of outgroup trust: General Outgroup Trust (eigenvalue=6.50; 5 items; α=.85; loadings>.46), Trust: No harm (individual) (eigenvalue=1.58; 3 items; α=.95; loadings>.89), Trust: No harm (group) (eigenvalue=1.29; 3 items; α=.97; loadings>.87), and Trust: Predictability (eigenvalue=1.10; 3 items; α=.64; loadings>.59). All cross-factor loadings were lower than .18.

We then performed a Confirmatory Factor Analysis (CFA) with maximum likelihood estimation method, in which the 14 outgroup trust items were the indicators and the four factors were the latent variables, with each item loading only on the corresponding factor. The fit of this model was satisfactory: $\chi^2(71)=323.22$, $p\cong.00$, χ^2/df ratio=4.55; RMSEA=.066; SRMR=.038; CFI=.98. An alternative model in which the 14 items loaded on a single latent variable showed a clearly

unacceptable fit: $\chi^2(77)=3854.85$, $p\cong.00$, χ^2/df ratio=50.06; RMSEA=.26; SRMR=.15; CFI=.76. These findings confirmed the four-factor structure of our outgroup trust scale.

Dependent Variables: Outgroup Attitudes and Behavioral Tendencies. As in Study 2, outgroup attitudes were measured using the single-item feeling thermometer. We used the positive and negative behavioral tendency items from Study 2 in this study. Reliability was good for the positive (α=.75), negative-confront (α=.71) and negative-avoid (α=.82) behavioral tendencies.

Results and Discussion

Confirmatory Factor Analysis

As we have argued that outgroup trust is a distinct construct from intergroup emotions and outgroup attitudes, we used CFA to test a model in which we considered latent factors for the three main constructs (trust, positive emotions, negative emotions) and outgroup attitudes. The latent factor for trust was measured by four composite variables: 'general trust', 'trust that known outgroup individuals will not harm the ingroup', 'trust that the outgroup in general will not harm the ingroup', and 'trust as predictability of the outgroup'. The latent factor for positive emotions was related to the positive emotions index only. The latent factor for negative emotions was measured by the three composite measures of anger, contempt and anxiety. The latent factor for outgroup attitudes was related to the measure of outgroup attitudes only. This CFA model (Figure 3) fit the data well: $\chi^2(23)=127.53$, $p\cong.00$, χ^2/df ratio=5.54; RMSEA=.071; SRMR=.040; CFI=.98. The four latent factors were correlated, but clearly distinct.

In an alternative model, all observable variables were modeled as measures of a single latent construct. This model yielded poor fit: $\chi^2(27)=712.41$, $p\cong.00$, χ^2/df ratio=26.39; RMSEA=.19; SRMR=.086; CFI=.87.

Mediated path model

We again tested our model using a mediated model. This time, however, whereas cross-group

friendships and intergroup appraisals served as the primary independent variables, we included some additional elements to the model. Specifically, opportunity for contact served as an exogenous variable,[4] self-disclosure served as an additional mediational link[5] between the primary predictors and the primary mediator variables, and the two additional trust factors (described above) were included in the cluster of mediator variables. As a strict test of the mediation hypothesis, all the direct paths between contact, appraisals and self-disclosure, on the one side, and the four criterion variables, on the other, were excluded a-priori. Figure 4 presents the results of the path model. The satisfactory fit indexes suggest that the hypothesized mediating processes represent the observed associations between variables.

Opportunity for contact predicted both cross-group friendships and intergroup appraisals, and both of these latter variables significantly predicted self-disclosure. Concerning the mediator variables, cross-group friendship significantly predicted all forms of trust, positive emotions, and a reduction in intergroup anxiety. Intergroup appraisals significantly predicted all mediator variables (apart from Trust: Predictability) in the anticipated direction. Self-disclosure was a strong predictor of all mediator variables.

General outgroup trust was associated with positive behavioral tendencies, outgroup attitudes, and avoidance behavioral tendencies, and the Trust: No Harm (group) factor was associated only with outgroup attitudes. The Trust: Predictability and the Trust: No Harm (individual) factors were both associated with all three behavioral tendency scales, but not with outgroup attitudes. Although the

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[4] Keeping fixed the position of opportunity for contact as an exogenous variable, we were able to test alternative causal models by varying the order of the other constructs. None of the alternative models fit the data as well as our theoretical model, presented here.

[5] The addition of self-disclosure as an intervening mediator in our path model was tested with bootstrap analyses using the PROCESS macro (Hayes, 2012), which allows for "serial multiple mediation" (p. 14).

latter was associated with behavioral tendencies in the expected directions (viz., positively for positive tendencies and negatively for negative tendencies), the former was positively associated with both positive and negative behavioral tendencies.

Positive emotions predicted positive behavioral tendencies and outgroup attitudes, and negatively predicted avoidance tendencies to a lesser degree. Anger most strongly predicted confront tendencies, but was also related to avoidance tendencies. Anger was not associated with positive tendencies, but did predict outgroup attitudes in this study. Contempt predicted both confront and avoidance tendencies, showing a stronger relation with confront tendencies. As an antecedent of behavioral tendencies, anxiety again most strongly predicted avoidance tendencies, but it also predicted confront tendencies and outgroup attitudes.

Multisample comparisons showed the presence of 11 significant differences (out of 60 comparisons) between Catholic and Protestant respondents. In five cases the paths were significant for both groups, but with different magnitudes. In particular, the relations: opportunity for contact – cross-group friendship; appraisals – General Outgroup Trust; appraisals – Trust: No harm (individual); appraisals – Trust: No harm (group); General Outgroup Trust - avoidance were stronger for Catholics (respectively .47, .46, .27, .40, -.39, all significant with $p<.001$) than for Protestants (respectively .32, .26, .13, .27, significant with $p<.001$, and -.12, $p=.018$). The relationship between self-disclosure and Trust: Predictability was stronger for Protestants (.33, $p<.001$) than for Catholics (.13, $p=.026$). Two paths were significant for Protestants only: General Outgroup Trust – confront (-.14, $p=.006$); Trust: No harm (individual) – outgroup attitude (.15, $p<.001$; for Catholics the values were, respectively, .02 and -.07, *ns*). Finally, three paths were significant for Catholics only: contempt – confront (.39, $p<.001$); anxiety – outgroup attitude (-.32, $p<.001$) and anxiety – avoidance (.19, $p<.001$; for Protestants the values were, respectively, .06, -.06 and .05, *ns*).

Indirect Effects. Bootstrap analyses with 5,000 resamples assessed the indirect (mediational) effects of the predictor variables via both self-disclosure and the key mediator variables (see Table 2). The indirect effects of cross-group friendships and intergroup appraisals were equivalent, and all the considered mediators played a role in the investigated processes. Although the Trust: Predictability factor was involved in all the indirect effects, the Trust: No harm (group) dimension only mediated the relations between predictors and outgroup attitude. For the remaining mediators, General Outgroup Trust, positive emotions, anger and anxiety mediated three out of four effects for each criterion variable, while Trust: No harm (individual) and contempt played this role in two cases out of four.

To summarize, Study 3 confirmed that intergroup emotions and trust are conceptually distinct constructs, and that self-disclosure mediates between cross-group friendship and group-level mediators (emotions and trust).

General Discussion

Our goal in this article was to test a model integrating intergroup contact (e.g., Pettigrew & Tropp, 2006) and intergroup emotions (e.g., Mackie & Smith, 2002) in a context of real intergroup conflict and violence. Our model predicted that cross-group friendships lead to an increase in outgroup trust and other intergroup emotions, which then lead, in specific and theoretically consistent ways, to an increase in positive behavioral tendencies and a reduction in negative behavioral tendencies.

In Study 1, we presented longitudinal data showing that cross-group friendship (see Davies et al., 2011) does lead to an increase in outgroup trust over time, while controlling for pre-existing outgroup trust. The reverse was not found to be the case. Specifically, we found no evidence for the selection bias hypothesis, namely, that those with higher levels of prior outgroup trust exhibit an increased willingness to form cross-group friendships, and likewise that those with prior distrust avoid

cross-group friendships. This novel finding which uses trust as the dependent variable, echoes findings by Brown at al. (2007) and Dhont et al. (2011) on the non-significant relationship between prior prejudice and later contact. Study 1 laid the groundwork for exploring the mediating mechanisms between contact and behavioral tendencies in Studies 2 and 3.

In Study 2, we found that, among Catholic and Protestant university students, cross-group friendship and positive intergroup appraisals were associated with outgroup attitudes and positive and negative behavioral tendencies in theoretically-expected ways. Importantly, outgroup trust and other intergroup emotions mediated the relationship from friendship (but not appraisals) to the outcomes. Bootstrap analyses showed that both General Outgroup Trust and positive emotions had a strong mediating role for positive behavioral tendencies and outgroup attitudes. Contempt was a mediator between friendship and confront tendencies, whereas anxiety mediated only the link to avoidance tendencies.

Using a large, random sample of the adult Northern Irish population, Study 3 replicated the key findings of Study 2, with some differences. Specifically, whereas in Study 2 cross-group friendship predicted all of the proposed mediators (albeit marginally for the Trust: No Harm factor), in Study 3 it did not predict either anger or contempt emotions. Also, whereas in Study 2 intergroup appraisals predicted positive emotions but not negative emotions, in Study 3 they negatively predicted anger and contempt. In both Studies 2 and 3, General Outgroup Trust was a strong mediator, and together with positive emotions predicted both positive tendencies and more positive attitudes, while also predicting reduced avoidance tendencies. In both Studies 2 and 3, positive emotions did not relate to confront tendencies. Also, in both Studies 2 and 3, contempt most strongly predicted confront tendencies, and anxiety most strongly predicted avoidance. Expanding our taxonomy of trust, we found that trust in known outgroup individuals not to harm the ingroup was a reliable predictor of positive and both types of negative tendencies. Consistent with Study 2, the analog of this

variable at the group level predicted outgroup attitudes but did not predict behavioral tendencies.

Studies 2 and 3 differed with respect to the role of intergroup appraisals. Specifically, whereas in Study 2 there were few indirect effects from appraisals to the key outcome variables, in Study 3 there were clear indirect effects. At the same time, the paths from cross-group friendship to negative emotions appear to be weaker in Study 3, compared to Study 2. Because the measurement of these variables was consistent across studies, it is likely due, at least in part, to increased statistical power that more indirect effects were detected in Study 3, compared to Study 2. It is also possible that the random sample of adults in Study 3 tapped into a greater variety of experiences and viewpoints, compared to the university sample of Study 2. Note that in Study 2, there are no significant associations between appraisals and negative emotions; in Study 3, by contrast, the associations are readily apparent. The psychological link between emotions and perceptions of fairness, equality, and goal compatibility are clearly present for those in the random sample (mean age: 46) who, compared to the university sample (mean age: 20), have more direct experience of the inequality, incompatibility, and conflict. The role of intergroup appraisals may simply be greater for such a sample. Another factor that may obscure the cross-group friendship effects in Study 3 (compared to Study 2) is the addition of self-disclosure. The correlations between friendship and the mediating variables are still observed (albeit weaker than in Study 2), but the mediating effect of reciprocal self-disclosure now accounts for much of the variance.

In Study 3, we also assessed reciprocal self-disclosure as a key mediating process. When positive contact occurs involving reciprocal self-disclosure of personal information, then trust and intergroup emotions are impacted, resulting in more positive outgroup attitudes, as well as more positive and less negative behavioral tendencies. A CFA supported the empirical distinction between various measures of outgroup trust, intergroup emotions, and outgroup attitudes. A mediated path model then supported the key role of self-disclosure in the pathways leading to improved intergroup

behavioral tendencies and outgroup attitudes. We expanded on prior work on self-disclosure in cross-group friendships (e.g., Turner & Feddes, 2011; Turner et al., 2007) by showing that self-disclosure was significantly correlated with our mediating and outcome variables, and in the structural model it acted as a mediator from cross-group friendship (and appraisals) to our trust factors and both positive and negative emotions.

These consistent results show that we can predict intergroup behavioral tendencies from intergroup emotions and outgroup trust, and that emotions and trust are themselves strongly predicted by cross-group friendships. Cross-group friendship leads to greater trust and willingness to engage positively with the outgroup, but to an even greater degree cross-group friendship leads to a reduction in negative emotions and negative tendencies, such as avoidance or aggression. This appears to be the case regardless of category membership or group status (cf., Tropp & Pettigrew, 2005).

A logical next step would be to conduct a multi-wave, cross-lagged design in which the complete model (viz., friendship, self-disclosure, intergroup emotions, and behavioral tendencies) is assessed longitudinally. This would unify the findings of our longitudinal (Study 1) and cross-sectional (Studies 2 & 3) designs, especially if done across cultures and contexts.

Each of our studies (especially Studies 2 and 3) showed strong evidence that outgroup trust is crucial to the development of positive behavioral tendencies. Further, we have shown that outgroup trust is not a unidimensional construct. Both exploratory and confirmatory factor analyses revealed distinct constructs relating to outgroup trust. Trust can be general or specific. Future research should aim to measure trust in a multifaceted way, and to do so in a context-specific manner. For example, many of our outgroup trust items were developed from focus groups and deal specifically with the intergroup conflict and dynamics in Northern Ireland. As such, although we anticipate good generalizability of our measures and findings, we do not anticipate that each of our outgroup trust items will be useful in all conflicts. We expect that while conflicts around the world will share some

general dimensions, each individual conflict will also have its own unique aspects that will require an adaptation of the outgroup trust items.

This work is not without limitations. Although the present focus on trust and behavioral tendencies is a welcome complement to studies predicting attitudes from contact, we have not yet measured actual behavior. The present work also relies, partly, on cross-sectional samples. Although Study 1 tested a longitudinal model, Studies 2 and 3 used cross-sectional designs. Any conclusions regarding the causality of the data must therefore be tentative, especially in Study 2 which employed a comparatively small sample, but we included opportunity for contact as an exogenous variable in Study 3, allowing us to test reverse models and rule out less well-fitting models than our proposed one (see Footnote 4). Future researchers should examine how different forms of contact (in addition to friendship), appraisals, emotions, and mutually beneficial intergroup behaviors interrelate over time. We also acknowledge that our measures of friendship changed slightly across studies, from "close" friends in Study 1 to "closest friends" in Studies 2 and 3. We did this in an effort to make the measure more precise. Nevertheless, by focusing participants, across all studies, on cross-group friendships in particular rather than on all close friendships, the impact of cross-group friendships may have been artifactually inflated. Future changes to the methodology may bear this out. Finally, our limited measures of positive emotions, across Studies 2 and 3, should be expanded in future research.

To conclude, we believe that integrating contact theory with an intergroup emotions approach yields a fuller appreciation and comprehension of intergroup relations in a context renowned for its history of mistrust and violence. We look forward to further tests of this integrative model in other societies and contexts of intergroup conflict, and we are confident that the psychological variables measured and reported here will play a crucial role both in theoretical explorations of intergroup contact effects as well as in the creation and implementation of interventions to reduce conflict.

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Appendix A

Factor 1, General Outgroup Trust, in addition to 3 general trust items from study 1

Members of the other community will exploit me if I trust them. (R)

If I trust a member of the other community, and it turns out that I shouldn't have, I am fairly certain about what will happen to me.

I cannot trust people I know from the other community with personal information about myself. (R)

The other community is very unpredictable. I never know how they are going to act from one day to the next. (R)

Factor 2, Trust: No Harm

I can trust people I know from the other community not to…
- …hurt people from my community.
- …attack my community.
- …give information to terrorists/paramilitary groups.

Appendix B

Factor 1, General Outgroup Trust, in addition to the 3 general trust items from study 1

Members of the other community will exploit me if I trust them. (R)

If I trust a member of the other community, and it turns out that I shouldn't have, I am fairly certain about what will happen to me.

Factor 2, Trust: No Harm (individual)

I can trust people I know from the other community not to…
…hurt people from my community.
…attack my community.
…deceive us.

Factor 3, Trust: No Harm (group)

I can trust the other community in general not to …
…hurt people from my community.
…attack my community.
…deceive us.

Factor 4, Trust: Predictability

I can rely on members of the other community to be consistent in their behaviour.

I am familiar with the general way that members of the other community behave.

The other community is very unpredictable. I never know how they are going to act from one day to the next. (R)

Table 1
Indirect effects [with 95% Confidence intervals] of cross-group friendship and appraisals on criterion variables (Study 2).

Mediator	Positive tendencies	Negative action - Avoid	Negative action - Confront	Outgroup attitude
Predictor: Cross-group friendships				
General outgroup trust	.0810* [.0285/.1471]	-.0119 [-.0723/.0827]	-.0370(*)[-.0841/.0007]	.3719(*)[-.0113/.9625]
Trust: no harm	-.0014 [-.0272/.0231]	.0023 [-.0130/.0215]	-.0003 [-.0180/.0171]	.3325 [-.0738/.8750]
Positive emotions	.0378* [.0050/.0856]	-.0163 [-.0449/.0034]	-.0056 [-.0332/.0173]	.4716* [.0974/.9647]
Neg. emotions - Anger	.0223* [.0005/.0698]	-.0471 [-.1110/.0039]	-.0570 [-.1434/.1114]	.1160 [-.7771/.9005]
Neg. emotions - Contempt	.0236 [-.0182/.0813]	-.0044 [-.0412/.0315]	-.0378(*)[-.0948/.0005]	.3411 [-.3808/.9416]
Neg. emotions - Anxiety	.0137 [-.0061/.0493]	-.0442* [-.1001/-.0059]	-.0047 [-.0422/.0342]	.2568 [-.4566/.8779]
Predictor: Appraisals				
General outgroup trust	.0351* [.0013/.1110]	-.0001 [-.0424/.0572]	-.0025 [-.0492/.0453]	.0750 [-.7347/.8579]
Trust: no harm	-.0035 [-.0570/.0481]	.0042 [-.0272/.0432]	.0007 [-.0332/.0389]	.3522 [-.1497/.9441]
Positive emotions	.1175* [.0288/.2247]	.0217 [-.0797/.1212]	-.0145 [-.0844/.0572]	.2936* [.1106/.8636]
Neg. emotions - Anger	.0118* [.0001/.0522]	.0120 [-.0486/.0960]	.0131 [-.0742/.1160]	.0557 [-.5577/.7434]
Neg. emotions - Contempt	-.0143 [-.0916/.0443]	.0033 [-.0341/.0471]	.0254 [-.0508/.1164]	-.1202 [-.9034/.7807]
Neg. emotions - Anxiety	.0084 [-.0161/.0458]	-.0083 [-.0891/.0725]	-.0023 [-.0410/.0298]	.0504 [-.6535/.7711]

* $p < .05$; (*) $p < .06$

Table 2

Indirect effects [with 95% Confidence intervals] of cross-group friendship and appraisals on criterion variables via self-disclosure (Study 3).

Mediator	Positive tendencies	Negative tendencies – Avoid	Negative tendencies - Confront	Outgroup attitude
Predictor: Cross-group friendships				
General outgroup trust	.0131* [.0065/.0212]	-.0114* [-.0186/-.0058]	-.0023 [-.0059/.0009]	.2523* [.1293/.4084]
Trust: predictability	.0033* [.0003/.0072]	.0033* [.0006/.0066]	.0023* [.0003/.0049]	.0220* [.0008/.0656]
Trust: no harm (individual)	.0132* [.0068/.0212]	-.0064* [-.0121/-.0019]	-.0025 [-.0062/.0005]	.0788 [-.0214/.1937]
Trust: no harm (group)	-.0026 [-.0069/.0015]	-.0015 [-.0042/.0010]	-.0004 [-.0023/.0013]	.0726* [.0060/.1552]
Positive emotions	.0257* [.0157/.0372]	-.0039* [-.0066/-.0018]	-.0008 [-.0024/.0007]	.2704* [.1673/.3955]
Neg. emotions - Anger	.0009 [-.0032/.0056]	-.0057* [-.0113/-.0015]	-.0067* [-.0121/-.0027]	.1141* [.0312/.2243]
Neg. emotions - Contempt	.0004 [-.0020/.0030]	-.0027* [-.0061/-.0002]	-.0024* [-.0052/-.0005]	.0275 [-.0163/.0829]
Neg. emotions - Anxiety	-.0001 [-.0030/.0027]	-.0034* [-.0073/-.0003]	-.0022* [-.0049/-.0002]	.1041* [.0433/.1842]
Predictor: Appraisals				
General outgroup trust	.0169* [.0082/.0273]	-.0146* [-.0241/-.0074]	-.0029 [-.0075/.0011]	.3246* [.1633/.5256]
Trust: predictability	.0043* [.0004/.0092]	.0043* [.0008/.0085]	.0030* [.0004/.0062]	.0283* [.0011/.0831]
Trust: no harm (individual)	.0170* [.0086/.0274]	-.0083* [-.0155/-.0025]	-.0033 [-.0081/.0007]	.1016 [-.0255/.2443]
Trust: no harm (group)	-.0034 [-.0090/.0020]	-.0019 [-.0055/.0013]	-.0005 [-.0030/.0018]	.0936* [.0085/.2002]
Positive emotions	.0331* [.0203/.0482]	-.0051* [-.0086/-.0024]	-.0010 [-.0031/.0009]	.3482* [.2058/.5198]
Neg. emotions - Anger	.0011 [-.0041/.0071]	-.0073* [-.0142/-.0019]	-.0085* [-.0153/-.0036]	.1472* [.0390/.2922]
Neg. emotions - Contempt	.0005 [-.0026/.0040]	-.0034* [-.0079/-.0002]	-.0031* [-.0066/-.0007]	.0352 [-.0203/.1047]
Neg. emotions - Anxiety	-.0002 [-.0038/.0034]	-.0044* [-.0096/-.0003]	-.0029* [-.0064/-.0002]	.1337* [.0561/.2371]

* $p < .05$

Figure 1. Two-group longitudinal structural model for Study 1 (*N*=970).

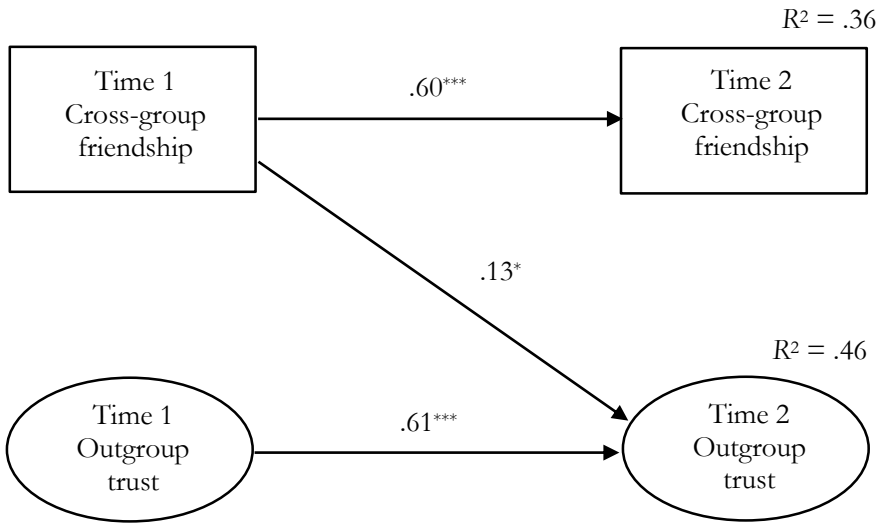

Figure 2. Study 2 (N=160): Mediated path model. Fit indexes: $\chi^2(10)=7.08$, $p=.72$, χ^2/df ratio=0.71; RMSEA=.000; SRMR=.018; CFI=1.00. Lighter gray paths originate from trust.
$^{*}p<.05$; $^{**}p<.01$; $^{***}p<.001$; $^{(*)}p<.09$

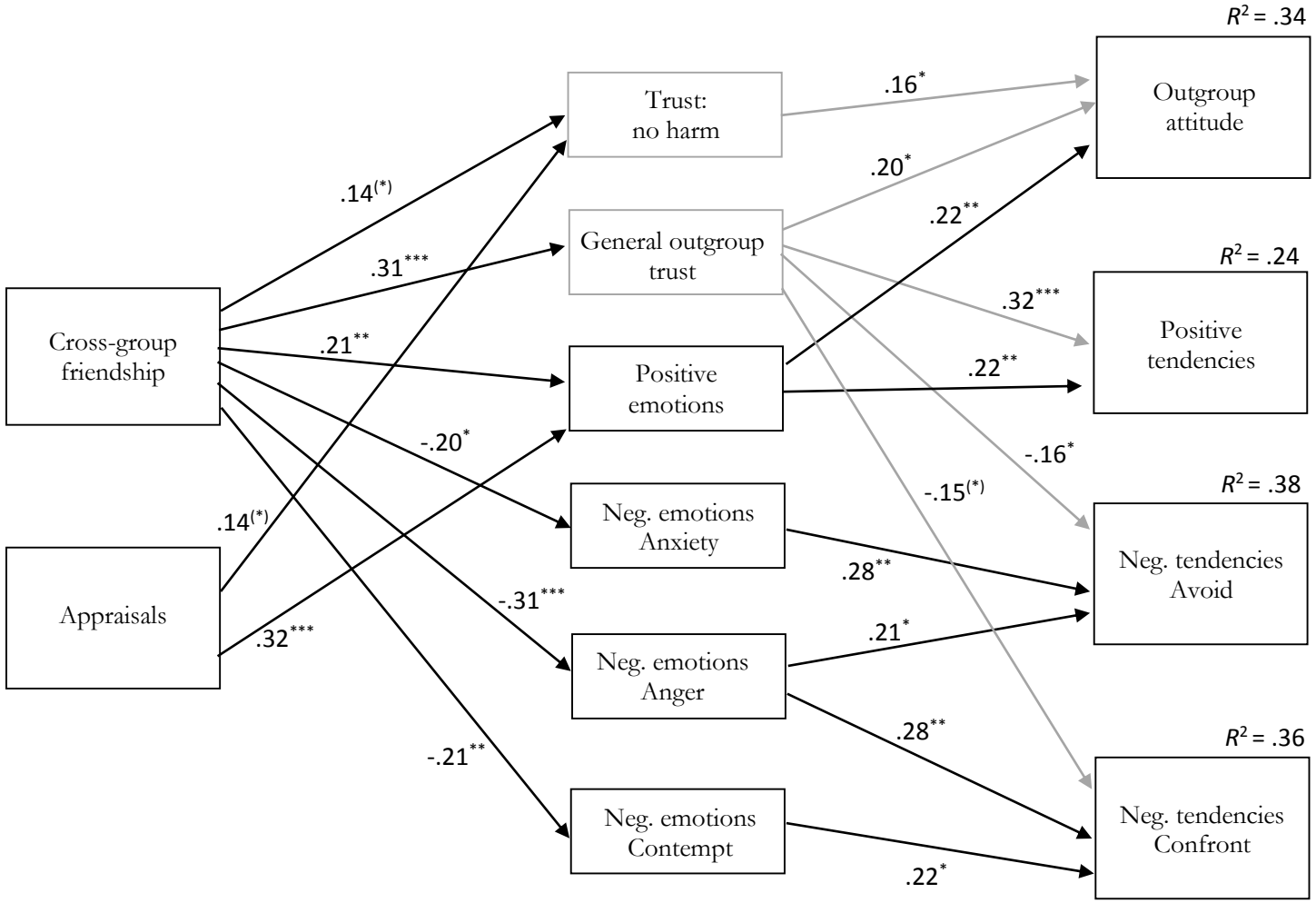

Figure 3. Study 3 (N=880): Confirmatory Factor Analysis; All paths $p<.001$. Fit indexes: $\chi^2(23)=127.53$, $p\cong.00$, RMSEA=.071, SRMR=.040, CFI=.98

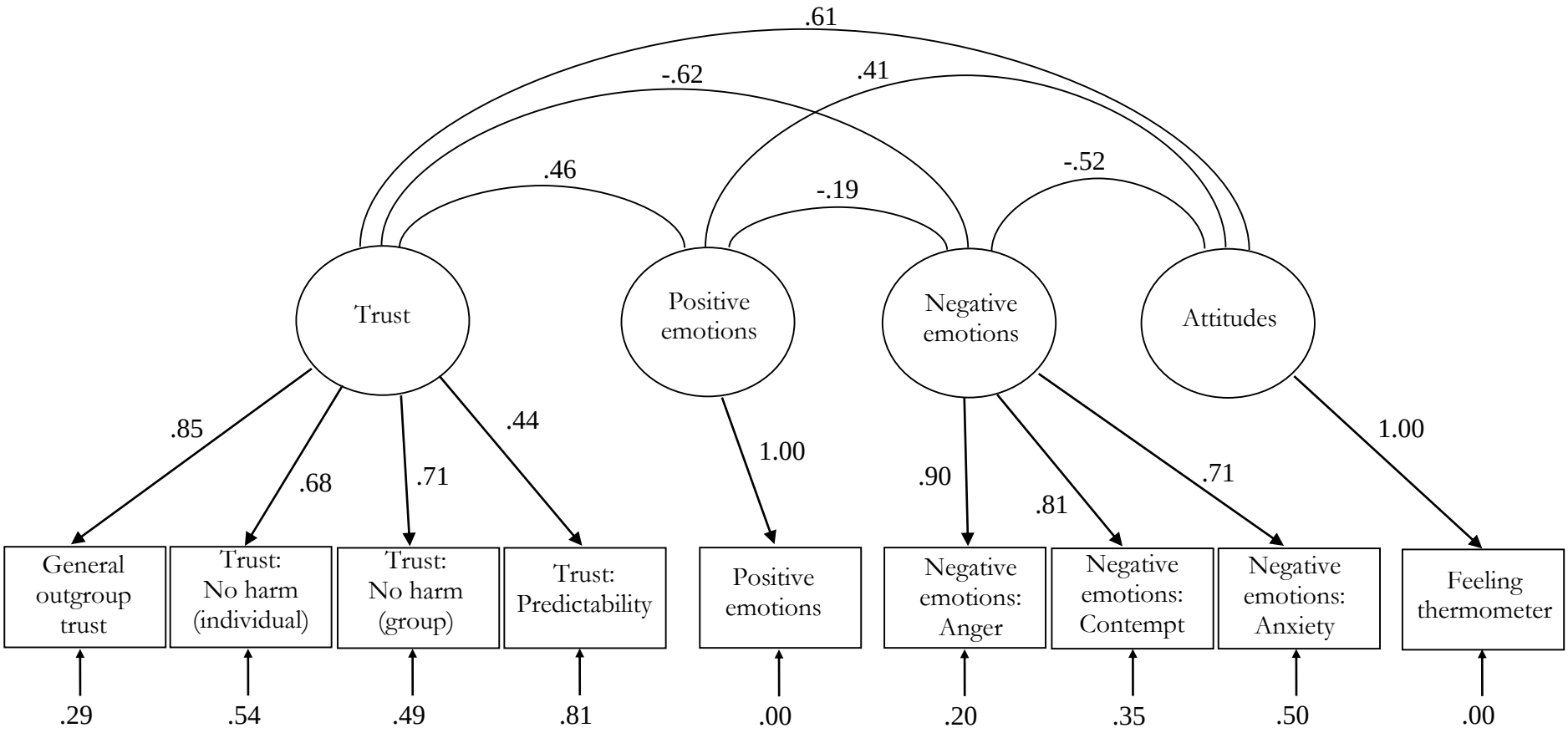

Figure 4. Study 3 (N=880): Mediated path model. Fit indexes: $\chi^2(26)=89.27$, $p\cong.00$, χ^2/df ratio=3.43; RMSEA=.052; SRMR=.021; CFI=.99. Lighter gray paths originate from self-disclosure and trust. All reported paths are significant with $p<.001$, except: $^{*}p<.05$, $^{**}p<.01$